

Notice of Allowability

Application No.

09/831,262

Examiner

Mai T. Tran

Applicant(s)

GAMMERMAN ET AL.

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/29/2005.
2. ☒ The allowed claim(s) is/are 10,12,14,15,17 and 18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

1. Claims **10, 12, 14-15, and 17-18** are allowed.
2. The following is an Examiner's statement of reasons for allowance:

The cited prior arts taken alone or in combination fail to teach the claimed invention of the data classification apparatus and method adapted to high dimensional classification problems and provide a single measure of confidence that is valid under the independently and identically distributed assumption, as claimed by Applicants.

Specifically, independent claims 10, 14, 15, and 18 disclose using a specific formula to compute the measure of confidence mentioned above.
3. The closest prior arts of Hirotaka Mizuno (U. S. Patent No. 5,577,166, dated November 19, 1996; class 395; subclass 22) teaches a method and an apparatus for classifying an input pattern as a classification object by use of a neural network and transforming the input pattern into an output pattern as a result of classification, in view of Eiichi Tsuboka (U. S. Patent No. 5,608,841, dated March 4, 1997; class 395; subclass 2.65) teaches a method and apparatus for estimating parameters of a new hidden Markov model applicable to pattern recognition such as recognition of speech signals, in view of McDonough et al (U. S. Patent No. 5,625,748, dated April 29, 1997; class 395; subclass 2.6) teaches an improved topic discriminator using posterior probability, and in further view of Kulkarni et al "On the existence of strongly consistent rules for estimation and classification", IEEE (1995) teaches the necessary and sufficient conditions for the

existence of strongly consistent estimators for hypothesis testing. All of the above cited prior arts fail to teach or suggest each pair, of the example and classification, in the set is tested by the assay means to determine a single strangeness value valid under the independently and identically distributed assumption, computed according to the formula in claims 10, 14, 15, and 18. To the extent that this feature is not found in the prior art cited by Examiner, the present case is held allowable over the art of record.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments of Statement of Reasons for allowance."

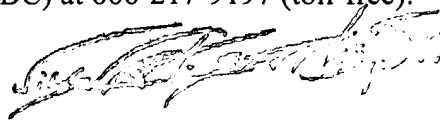
CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mai T. Tran whose telephone number is (571) 272-4238. The examiner can normally be reached on M-F 9:00am-- 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



M.T.T
Patent Examiner
Date: 2/10/2006

Wilbert L. Starks
Primary Examiner
Tech Center 2100